3

lock surface 32. The guard wall portions 46 are positioned radially outwardly and adjacent to the lock elements 38 when the closure is in a locked condition as shown in FIG. 4. The guard walls 46 act as stops to prevent radial outward deflection of the lock elements 38 and the associated push 5 tabs 34. Such unlocking action could possibly be brought about by children using their teeth to pry the push tabs radially outwardly to permit subsequent unthreading of closure 12 from the container 14.

Another embodiment of the invention is shown in FIGS. <sup>10</sup> 5 and 6. In this case push tabs 54 are formed by a pair of circumferentially spaced, axially extending slots 56 which terminate short of the lip 28 of the closure 12 and are joined by a circumferentially extending slot 58. This construction allows the lip 28 of the container 12 to remain continuous and uninterrupted to reinforce and maintain the circular shape of the closure 12.

The inside surface of the push tab 54 are provided with lock elements 60. The lock elements 60 engage lock members 40 having the same general configuration as the lock member 40 shown in FIG. 4. Upon application of pressure to the pressure points 37, the push tabs 54 are deflected radially inwardly so that the lock elements 60 disengage from the lock members 40 and permit subsequent rotation of the closure 12 in an opening direction relative to the container 14 for removal from the neck 18. In this embodiment of the invention, the lip 28 of the closure 12 can be brought into closer proximity to the shoulder 41 of the container 14 than in the embodiment of FIGS. 1–3.

In both of the embodiments of the invention, opening movement requires a simultaneous squeezing of the closure and unthreading rotation of the closure relative to the container. The squeezing action is required to disengage the lock mechanism made up of the lock elements 38 and 60 from the lock members 40. This squeezing action is applied on the push tabs 34 or 54 in close proximity to the lock mechanism made up of the lock elements 38, 60 and the lock members 40. The application of force in this manner is effective to transform all squeezing movement into unlocking movement. This overcomes the limitation of squeeze and turn caps in which the deformation of the lip of the closure into an oval is required with an accompanying loss of unlocking movement.

Although in both embodiments of the invention reference has been made to diametrically opposed push tabs 34 and 54 and associated lock elements 40, it will be understood that a single push tab and associated lock element could be used and substantially the same type operation and benefits would result. In the preferred embodiments, the use of two push tabs is thought to be desirable because it requires the same familiar squeezing action at opposite points as conventional push and mm closures which are squeezed into an oval shape. Also, the requirement of squeezing at opposite points on the closure skirt is thought to increase the level of 55 difficulty of opening by children.

Still another variation of the invention is shown in FIG. 7. The closure 12 is generally identical with the embodiment shown in FIG. 5 with the exception that webs 64 are formed in the slot 58. Opening of the package by deflection of the 60 push tab 54 requires that the webs 64 be broken. The fracture of webs 64 serves to indicate that there has been an attempt to open the package. If desired, similar webs can be used in association with the slots 36 defining the push tabs 34 of the first embodiment of the invention. Also, the webs 64 can be 65 replaced by a continuous membrane or other line of weakening which fractures upon the application of force to the

4

pressure points 37. The fracture of the webs 64 or membranes serves as a tamper-indicating feature giving evidence of prior attempts to open the container.

It will be noted that the pressure points 37 for the lock tabs 34 and 54 are in close proximity to the lock elements 38 and 60. In this manner, the manual force required to unlock the closure is applied in close proximity to the lock elements which must be moved out of engagement with the lock members 40 to bring about complete opening movement.

It is contemplated that the push tabs 54 of the closure 12 can be thinner in cross-section than the adjoining skirt walls to provide for easier deflection of the push tabs 54 than of the remaining walls of the skirt.

A child-resistant closure and container package has been provided in which push tabs are arranged in the closure to prevent rotation of the closure relative to the container until the push tabs are deflected radially inwardly in order to disengage lock members on the container to permit continued unthreading action. Thus, simultaneous squeezing of the push tabs and rotation of the closure are required to accomplish opening of the container to accomplish child-resistant operation.

I claim:

- 1. A child-resistant closure and container package comprising:
  - a closure having a top and an annular skirt extending from said top to form an annular lip spaced axially from said top.
  - a container having a cylindrical neck to be received in said closure complementary threads on said skirt and on said neck engageable to hold said closure on said container with said lip in radially spaced relation to said container,
  - a push tab formed in said skirt below said threads to permit deflection of said tab radially inwardly relative to said neck and the adjacent portions of said skirt, said push tab being formed by axially extending, circumferentially spaced slots in said skirt and by a circumferentially extending slot in spaced adjacent relation to said lip and joining said spaced slots.
  - a lock member on said container, and
  - a lock element on said push tab engageable with said lock member to prevent unthreading of said closure from said container when said push tab is in its undetected position said tab being deflectable radially inwardly to move said lock element out of the path of said lock member to permit unthreading of said closure from said container.
- 2. The package of claim 1 and further comprising means preventing radial outward deflection of said push tab when said closure is in its closed position.
- 3. The package of claim 2 wherein said means preventing deflection of said tab is formed by said lock member.
- 4. The package of claim 1 and further comprising an additional lock member on said container in diametrically opposed relation to said first mentioned lock member.
- 5. The package of claim 4 and further comprising an additional push tab formed in said skirt in diametrically opposed relation to said first mentioned push tab.
- 6. The package of claim 1 and further comprising means for deflecting said lock element radially out of the path of said lock member during closing motion of said closure relative to said container.
- 7. The package of claim 6 wherein said means for deflecting is operative to deflect said tab radially inwardly.